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Air conditioning device for motor vehicles

Description

The invention relates to an air conditioning device for the passenger compartment of motor vehicles.

In air conditioning devices for the passenger compartment of motor vehicles, blower openings or nozzles are generally provided which supply air in order to cool or heat the passenger compartment. These blower openings or nozzles are situated in the front region of the passenger compartment, generally in the region of the dashboard, thereby favoring the front passengers but not favoring the rear passengers.

This disadvantage is particularly noticeable in the hot season of the year, when the fresh air supplied by the blower openings does not reach the back seat region until it has been heated during the passage through the front region of the passenger compartment.

The object of the invention is to provide an air conditioning device for the passenger compartment of motor vehicles which remedies this situation and also provides the rear passengers with an effective, conditioned air stream.

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This object is achieved by the invention by use of an electric fan which is accommodated in a housing which is mounted on the seat of the motor vehicle and which has blower openings, pointing to the rear with respect to the seat, for supplying an air stream generated by the fan.

The air conditioning device according to the invention ensures in a simple and economical manner that the rear passengers of the motor vehicle are provided with sufficient air.

In one refinement of the invention, the housing is mounted between the upper edge of the seat back and a head support fastened thereto.

In this case the housing may be mounted on fastening rods which connect the head support to the seat back. It is advantageous for the housing to have vertical slots by means of which it may be placed on the fastening rods in a force-fit and/or form-fit manner.

The invention is explained below with reference to one exemplary embodiment illustrated in the drawings.

Figure 1 shows a perspective illustration of the passenger compartment of a motor vehicle, showing the front seat which bears the air conditioning device according to the invention; and

Figure 2 shows a sectional illustration in plane II-II of Figure 1.

A seat collectively designated by reference character S is accommodated in the passenger compartment of a motor vehicle A, and has a seat back B, on the upper edge of which a head support C is mounted. The head

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support C has fastening rods D which anchor the head support to the seat back B in a known manner.

Between the upper edge of the seat back B and the head support C an air conditioning device 1 is mounted, having a housing 2 which accommodates an electric fan 3 of the type generally used for conventional air conditioners in motor vehicles.

The housing 2 has lateral intake openings 4 and blower openings 5 which point to the rear with respect to the seat back B of the seat S, by means of which an air stream generated by the fan 3 is conducted into the rear portion of the passenger compartment.

The blower openings 5 may have movable deflector plates (not shown), which are known in air conditioning devices for motor vehicles.

The electric fan 3 is connected to the electrical circuitry onboard the motor vehicle, and may normally be actuated by a switch 6 attached to the housing 2, for example in the vicinity of the rearwardly pointing blower openings 5. Alternatively, it is also possible to provide the electric fan 3 with a remote control device which allows it to be switched on and off from the dashboard, for example, or from another location in the passenger compartment.

The housing 2 may be mounted to the seat S in any desired manner. However, it is advantageous to provide a simple form-fit and/or force-fit attachment between the upper edge of the seat back B and the lower edge of the head support C. In the exemplary embodiment illustrated, the fastening rods D for the head support C are used for this purpose, with the

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housing 2 being placed on the fastening rods via vertical slots 7 and resting on the vertical slots by means of a snap-on mounting.

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